

FILE 'HOME' ENTERED AT 16:55:50 ON 27 JUN 2005

=> file biosis caplus caba agricola

=> s magainin and (plastid or chloroplast)

L1 7 MAGAININ AND (PLASTID OR CHLOROPLAST)

=> d ti 1-7

L1 ANSWER 1 OF 7 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Expression of an antimicrobial peptide via the **chloroplast** genome to control phytopathogenic bacteria and fungi.

L1 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

TI Double-stranded RNAs as replicating expression vectors for plants

L1 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

TI Expression of an antimicrobial peptide via the **chloroplast** genome to control phytopathogenic bacteria and fungi

L1 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

TI Expression of an antimicrobial peptide via the **plastid** genome to control phytopathogenic bacteria

L1 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

TI Genes for enzymes of salicylate biosynthesis of for the induction of disease resistance in plants

L1 ANSWER 6 OF 7 CABA COPYRIGHT 2005 CABI on STN

TI Expression of an antimicrobial peptide via the **chloroplast** genome to control phytopathogenic bacteria and fungi.

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TI Expression of an antimicrobial peptide via the **chloroplast** genome to control phytopathogenic bacteria and fungi.

=> d bib abs 1 2 5

L1 ANSWER 1 OF 7 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

AN 2001:570467 BIOSIS

DN PREV200100570467

TI Expression of an antimicrobial peptide via the **chloroplast** genome to control phytopathogenic bacteria and fungi.

AU DeGray, Gerald; Rajasekaran, Kanniah; Smith, Franzine; Sanford, John; Daniell, Henry [Reprint author]

CS Department of Molecular Biology and Microbiology and Center for Discovery of Drugs and Diagnostics, University of Central Florida, 12722 Research Parkway, Orlando, FL, 32826-3227, USA
daniell@mail.ucf.edu

SO Plant Physiology (Rockville), (November, 2001) Vol. 127, No. 3, pp. 852-862. print.

CODEN: PLPHAY. ISSN: 0032-0889.

DT Article

LA English

ED Entered STN: 12 Dec 2001

Last Updated on STN: 25 Feb 2002

AB The antimicrobial peptide MSI-99, an analog of **magainin 2**, was expressed via the **chloroplast** genome to obtain high levels of expression in transgenic tobacco (*Nicotiana tabacum* var. Petit Havana) plants. Polymerase chain reaction products and Southern blots confirmed integration of MSI-99 into the **chloroplast** genome and achievement of homoplasmy, whereas northern blots confirmed transcription. Contrary to previous predictions, accumulation of MSI-99 in transgenic

chloroplasts did not affect normal growth and development of the transgenic plants. This may be due to differences in the lipid composition of **plastid** membranes compared with the membranes of susceptible target microbes. In vitro assays with protein extracts from T1 and T2 plants confirmed that MSI-99 was expressed at high levels to provide 88% (T1) and 96% (T2) inhibition of growth against *Pseudomonas syringae* pv *tabaci*, a major plant pathogen. When germinated in the absence of spectinomycin selection, leaf extracts from T2 generation plants showed 96% inhibition of growth against *P. syringae* pv *tabaci*. In addition, leaf extracts from transgenic plants (T1) inhibited the growth of pregerminated spores of three fungal species, *Aspergillus flavus*, *Fusarium moniliforme*, and *Verticillium dahliae*, by more than 95% compared with non-transformed control plant extracts. In planta assays with the bacterial pathogen *P. syringae* pv *tabaci* resulted in areas of necrosis around the point of inoculation in control leaves, whereas transformed leaves showed no signs of necrosis, demonstrating high-dose release of the peptide at the site of infection by **chloroplast** lysis. In planta assays with the fungal pathogen, *Colletotrichum destructivum*, showed necrotic anthracnose lesions in non-transformed control leaves, whereas transformed leaves showed no lesions. Genetically engineering crop plants for disease resistance via the **chloroplast** genome instead of the nuclear genome is desirable to achieve high levels of expression and to prevent pollen-mediated escape of transgenes.

L1 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:988456 CAPLUS

DN 140:37061

TI Double-stranded RNAs as replicating expression vectors for plants

PA BASF Plant Science GmbH, Germany

SO Ger. Offen., 176 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10225066	A1	20031218	DE 2002-10225066	20020606
PRAI	DE 2002-10225066		20020606		
AB	<p>Vectors for plant systems based on endogenous dsRNAs, defective interfering RNAs, or dsRNA plant viruses are described for use in suppression of the expression of endogenous genes or for expression of foreign genes in plants. The dsRNA can be delivered to primary target cells as a DNA vector from which the two strands are transcribed to form a dsRNA that can propagate using an RNA replicase and be transmitted to other cells. Furthermore, expression cassettes are included for expression of mentioned double-stranded RNA mols., as well as organisms, in particular plants, comprising double-stranded RNA mols. or expression cassettes, preferable transgenic plants, and therefrom derived cultures, parts or propagation matter.</p>				

L1 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:640994 CAPLUS

DN 131:269660

TI Genes for enzymes of salicylate biosynthesis of for the induction of disease resistance in plants

IN Linthorst, Hubertus Josephus Maria; Verpoorte, Robert; Verberne, Maria Catharina; Moreno, Paulo R. H.; Van Tegelen, Leonardus Johannes Petronella; Wullems, George Joseph; Croes, Anton Felix; Stuiver, Maarten Hendrik; Custers, Jerome Hubertina Henricus Victor; Simons, Lambertus Henricus; Melchers, Leo Sjoerd; Bol, John Ferdinand

PA Mogen International N.V., Neth.; Rijksuniversiteit Leiden; Katholieke Universiteit Nijmegen; et al.

SO PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9950423	A2	19991007	WO 1999-EP2176	19990325
	WO 9950423	A3	19991216		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2333433	AA	19991007	CA 1999-2333433	19990325
	AU 9936025	A1	19991018	AU 1999-36025	19990325
	AU 746787	B2	20020502		
	BR 9909303	A	20001121	BR 1999-9303	19990325
	EP 1066389	A2	20010110	EP 1999-917919	19990325
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2003513608	T2	20030415	JP 2000-541311	19990325
	ZA 2000005115	A	20020102	ZA 2000-5115	20000922
PRAI	US 1998-80203P	P	19980331		
	US 1998-80625P	P	19980403		
	WO 1999-EP2176	W	19990325		
AB	Methods of using genes for enzymes of salicylic acid biosynthesis to increase disease resistance in plants are described. More specifically, the gene for isochorismate synthase may be entC, orfA, pchA or the ICS gene of Catharanthus roseus, may be used. The synthase gene may be used in combination with an isochorismate pyruvate lyase gene, preferably in the same expression cassette. The isochorismate pyruvate lyase gene is selected from orfD and pchB. A further aspect of the invention is a protein having isochorismate synthase activity which is isolated from Catharanthus roseus. The isochorismate synthase of Catharanthus roseus is isolated and characterized and the gene cloned. The promoter of the gene is also cloned and characterized. In mature potato plants, expression of a reporter gene from the protein was induced by infection with Phytophthora infestans. Expression of the entC isochorismate synthase gene of Escherichia coli and the orfD of Pseudomonas fluorescens in tobacco led to an accumulation of bound and free salicylic acid. The double transformants showed significantly smaller lesions than did control plants when infected with tobacco mosaic virus.				

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STN INTERNATIONAL SESSION SUSPENDED AT 16:59:27 ON 27 JUN 2005

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	53	magainin and (plastid or chloroplast)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/06/27 17:05